BELZONA® KNOW-HOW
FOR SEALING EXPANSION AND CONSTRUCTION JOINTS

TCC-12

Common Problems

- No sealant present so allowing water / chemicals to penetrate through joint.
- Failure of original sealant due to adhesion failure, fatigue ageing or chemical attack.

Set-up

All work should be carried out in strict accordance with the relevant Belzona® Instructions For Use.

Product selection should be based on the anticipated joint movement, nature of the environment, particularly the presence of chemicals, and possible traffic over the joint

Deteriorated or broken joint edges should be rebuilt in accordance with Belzona® Know-How System TCC-11 “Rebuilding Damaged Expansion Joint Edges”.

Preparation

Remove all existing joint sealants and backer rod. Saturated joint filler should also be removed.

Using a disc grinder, abrade the sides of the joint to remove the remaining sealant and to provide a firm substrate to which to bond. Where joint edges have been rebuilt with **Belzona® 4111,** this process is extremely important to ensure a good bond.

As an alternative, grit blasting can be used to prepare the joint edges, but care should be taken not to round off the joint nosings.

All dirt should be removed by vacuuming or blowing out with compressed air. Masking tape should then be applied to the edges of the joint before moving on to conditioning.

Conditioning

Apply **Belzona® 2911** or **Belzona® 2921** in a thin film, using a stiff bristled brush, to the sides of the joint. The relevant Belzona® Instructions For Use should be followed.

Application

Once the conditioner is touch dry foam backer rod can be placed in the joint. It is extremely important that the diameter of the rod is carefully chosen in relation to the width of the joint and as a guide, the backer rod should be approximately 20% greater in diameter than the joint width.

The depth to which the foam backer rod is inserted is also important, and it should be positioned such that the depth between the top surface of the joint and the top surface of the backer rod is approximately half the width of the joint. A wooden template should be constructed to aid accurate positioning of the foam backer rod (fig. 1).

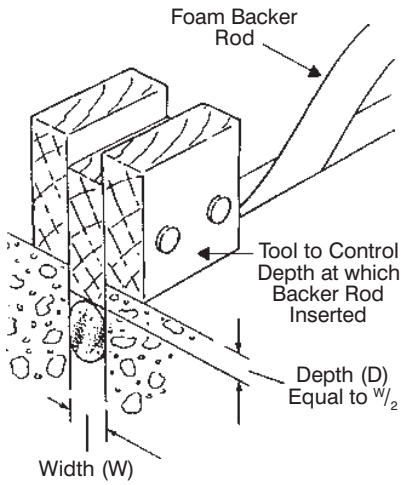

Fig. 1

The chosen **Belzona® 2000** Systems Product should then be mixed in accordance with the relevant Belzona® Instructions For Use.

A fluid grade should be used for horizontal joints and a paste grade for vertical joints.

a) Horizontal Joints

When treating horizontal joints with the fluid grade material, the **Belzona® 2000** Systems Product should initially be brushed onto the sides of the joint before pouring the remaining Belzona® Product to fill the joint, leaving the surface slightly concave (fig. 2).

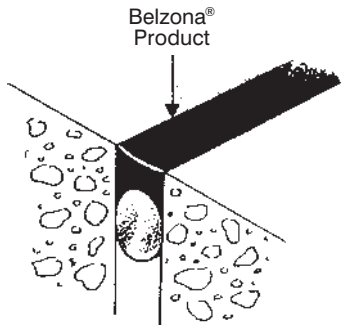

Fig. 2

b) Vertical Joints

For vertical joints, the **Belzona® 2000** Systems paste grade should be inserted into a cartridge gun and injected carefully into the joint to avoid air entrapment. Once in position, a suitable bar should be used to tool off the surface, which will assist in pressing the Belzona® material firmly into the base of the joint, and leave the required concave surface.

Once the joint has been filled, the masking tape should be removed before the product cures.

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Belzona® Technical Comparison:

Product	Consistency	Hardness Shore A	Modulus	Elongation	Working Life at 60°F (15°C)
Belzona® 2111	Paste	85	High	Medium	20 minutes
Belzona® 2131	Fluid	85	High	Medium	20 minutes
Belzona® 2211	Paste	70	Medium	High	15 minutes
Belzona® 2221	Fluid	65	Medium	High	20 minutes
Belzona® 2311	Paste	75	Medium	Medium	4 minutes

Belzona® System Selector:

Main System Requirement	Belzona® 2111	Belzona® 2131	Belzona® 2211	Belzona® 2221	Belzona® 2311
Vertical joints	•		•		
Horizontal Joints		•		•	
High movement			•	•	
Chemical spillage areas	•	•			
Rapid localized repair					•

Recommended Equipment:

Mixing and application tools are included in each pack of Belzona®. Prior to carrying out the repair, however, it is important that all other necessary tools and equipment are available on site. Every situation will be somewhat different, but the basic requirements could include those shown to the right.

- Angle Grinder with Suitable Discs
- Vacuum Cleaner or Compressed Air Supply
- Masking Tape
- Stiff Bristled Brushes
- Closed Cell Foam Backer Rod
- Suitable Timber to Produce Jig for Positioning of Backer Rod
- Suitable Protective Clothing/ Equipment
- Tooling Bar

For more complete technical information, please refer to the appropriate Belzona® Product Specification Sheet.
For detailed instructions on surface preparation, mixing and cure, please refer to the appropriate Belzona® Instructions For Use.
Comprehensive Health and Safety information is provided with the product.
All of these are available through your local Belzona® Engineer

Printed in England Publication No. 37-1-97

Printed from Belzona Electronic Library

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BS EN ISO 9002 : 1994
Certificate No. Q09335

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